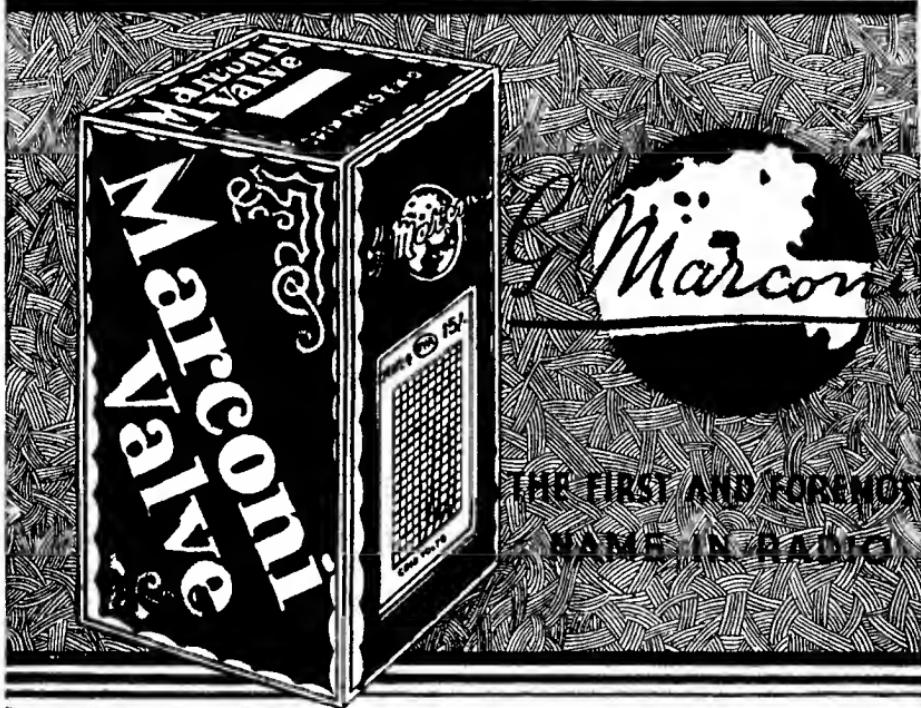


# MARCONI VALVES



*Use the Valves  
the Experts Use*

# MARCONI VALVES



CHOSEN BY ALMOST EVERY  
IMPORTANT PUBLIC SERVICE.



## “SUPREME IN EVERY SET.”

In the following pages you will find complete details of the new range of Marconi receiving valves. Amongst them are the ideal types for almost every receiver—valves of the most advanced design, of unequalled efficiency and of world-famous reliability. Much useful data is included for each type, while the information is arranged in logical sequence. It is hoped, too, that the introductory articles and rapid reference tables will fully repay your attention.

### SUBJECT INDEX.

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Trinity House  
Beacon Stations  
use  
Marconi Valves.

The World's  
largest  
Transmitting Stations  
rely on  
Marconi Valves.



Large Liners  
choose  
Marconi Valves  
as their only link  
with land.

**Marconi Valves are chosen by every important service**

# INDEX AND PRICE LIST

Type	Purpose	Price	Page
<b>*S.22</b>	Sereen Grid	20/-	10
<b>*S.21</b>	Screen Grid	20/-	10
<b>*H.2</b>	High Magnification	8/6	11
<b>*HL.2</b>	Medium Magnification	8/6	11
<b>HL.210</b>	Medium Magnification	8/6	12
<b>L2/b</b>	Low Magnification	8/6	12
<b>LP.2</b>	Power	10/6	13
<b>P.2</b>	Super-power	13/6	13
<b>P.2/b</b>	Super-power	13/6	—
<b>P.240</b>	Super-power	13/6	14
<b>PT.2</b>	Pentode	20/-	15
<b>PT.240</b>	Pentode	20/-	15
<b>DG.2</b>	Double Grid	20/-	14
<b>S.410</b>	Screen Grid	20/-	20
<b>H.410</b>	High Magnification	8/6	20
<b>HL.410</b>	Medium Magnification	8/6	20
<b>L.410</b>	Low Magnification	8/6	21
<b>P.410</b>	Power	10/6	21
<b>P.415</b>	Power	13/6	21
<b>P.425</b>	Super-power	13/6	22
<b>PT.425</b>	Pentode	20/-	22
<b>S.610</b>	Screen Grid	20/-	23
<b>H.610</b>	High Magnification	8/6	23
<b>HL.610</b>	Medium Magnification	8/6	23
<b>L.610</b>	Low Magnification	8/6	24
<b>P.610</b>	Power	10/6	24
<b>P.625</b>	Super-power	13/6	24
<b>P.625A</b>	Super-power	13/6	25
<b>LS.5A</b>	Super-power	25/-	26
<b>LS.6A</b>	Super-power	30/-	27
<b>PT.625</b>	Pentode	25/-	26
<b>*MS.4</b>	Screen Grid	22/6	31
<b>*MS.4B</b>	Screen Grid	22/6	31
<b>*VMS.4</b>	Sereen Grid	22/6	32
<b>*MH.4</b>	High Magnification	15/-	33
<b>*MHL.4</b>	Medium Magnification	15/-	33
<b>ML.4</b>	Low Magnification	17/6	34
<b>PX.4</b>	Super-power	20/-	35
<b>MPT.4</b>	Power Pentode	25/-	36
<b>PT.4</b>	Power Pentode	25/-	36
<b>*DS</b>	Screen Grid	22/6	37
<b>*DH</b>	High Magnification	15/-	37
<b>DL</b>	Low Magnification and Power	17/6	38
<b>DPT</b>	Power Pentode	25/-	39
<b>U.10</b>	250v. 60 MA	15/-	40
<b>U.12</b>	350v. 120 MA	17/6	40
<b>U.14</b>	500v. 120 MA	22/6	41
<b>GU.1</b>	1000v. 250 MA	25/-	41

\*These valves are available with metallised bulbs if desired.

Marconi Rectifiers types U.5 and U.8 are now non-standard and therefore not listed, but supplies are available for replacement purposes.

Details of Marconi high power, transmitting and other valves not included in this Catalogue will be supplied on request.

## THE IMPORTANCE OF GOOD VALVES

Radio is no longer the prerogative of the technician, but has taken its place as our greatest and most universal medium of entertainment.

Millions of listeners regard their receivers, not as a subject for experiment or study, but as an adjunct to modern civilisation as indispensable as clocks, electric bells, lighting, heating and other necessities. The possession of a Radio or Radio-gramophone is, in fact, a part of the natural order of things.

The valve, the most important factor in Radio, is one of those articles which have attained such consistent efficiency and reliability that they are apt to be taken for granted by the average listener. Yet the modern valve represents the outcome of many years of research directed towards the production of an article which, while involved in theory and complicated in construction, shall take a normal place in everyday commerce. Having attained this commonplace status, the valve is relegated by many listeners to a corresponding level of importance.

It cannot, however, be emphasised too strongly that the valve, unlike many practical developments of erstwhile laboratory objects, still necessitates the utmost skill in design—the finest machinery in assembly—and the most elaborate of tests if it is to provide complete satisfaction in the hands of the ordinary listener. Furthermore, the whole efficiency of any receiver depends upon the efficiency of its valves—a fact which is all too frequently overlooked. Many thousands of receivers are handicapped by inefficient or unsuitable valves; many old sets could be improved beyond recognition by the simple addition of new valves.

Better valves are thus the whole secret of better Radio. In the following pages is described the complete range of Marconi valves for all receivers—a type for every set. On the opposite page are detailed some of the reasons why Marconi valves—supreme in performance, reliability and reputation—are the real key to complete satisfaction.



## WHY MARCONI VALVES?

What qualities are required in a valve which is to be classed as "best"? High theoretical efficiency—extreme reliability—absolute consistency—very long life—or other, more elusive, qualifications? Obviously a question which experience alone can answer. And the answer is very definite; the best valve is obtained only by a process of evolution—by imposing the severest practical tests on every theoretically desirable feature—by skilfully uniting these features in a single whole—and by modifying the resultant design until greatest practical satisfaction is definitely assured. Such a valve, scientifically manufactured and rigorously tested, will have no equal.

Marconi valves, produced with the aid of unequalled resources of research and manufacture, have long been evolved in this way. They are designed by the world's foremost radio engineers—by the engineers who introduced the first dull emitter valve—the first A.C. mains valve, type KL.1—and the first screen grid valve, type S.625. They are manufactured by the most modern machinery and pass exacting and unique tests.

Every Marconi valve, following this principle, can be relied upon for higher dependable efficiency—greater consistency and economy—and longer life. For this reason Marconi valves are used wherever Radio is a factor of vital importance. Practically every public service chooses them. Almost every ocean liner, depending upon radio as her only link with the land, relies on Marconi valves. They are selected, too, by the B.B.C., Imperial Airways, Croydon Control Tower, Metropolitan Police, Trinity House Wireless Stations and Lightships, Imperial and International Wireless Communications, and many others. Whatever your receiver, your better valves will certainly be found in the following pages.





## CHOOSING THE CORRECT TYPES FOR YOUR SET

best suited to your circuit.

We have agreed that for the best results it is necessary, not only to select Marconi valves for your set, but to take advantage of the wide range and pick out the particular types which are

There are several ways of doing this. The technical enthusiast, for instance, will need no advice, as he will find in the following pages full details and characteristics of each valve from which he can easily form his selection. The non-technical listener, on the other hand, may adopt one of two courses.

On pages 16-18 and 43-44 are lists of the better known receivers of popular make, with the recommended Marconi valves for each position; if your set appears here the choice is made. If, however, the name is not in our list, the help of a good radio dealer should be enlisted (The Marconiphone Company will always be glad to recommend one in your locality). Be sure, however, that you obtain authentic *Marconi* valves, and do not accept substitutes.

Lastly, for the listener with a little technical knowledge there are two rapid reference tables (see pages 8 and 29) which, used in conjunction with approximate details of the circuit, are generally quite adequate.

If, however, any special difficulty should be encountered in making a choice, it is advisable to write to the Marconiphone Co. Ltd., Radio House, 210-212, Tottenham Court Road, London, W. 1. for a recommendation. In this case, give all available details of the receiver and circuit, with types of existing valves, voltage and source of L.T. and H.T. supplies and class of loud speaker.

### **Special Notes on Marconi Metallised Valves.**

Certain types among the Marconi 2-volt range are available, if desired, with a metallised bulb (see page 3), i.e. with a sprayed metal coating which assists stability and simplifies screening in large sets. In these valves the coating is connected to one of the filament pins in battery types and to the cathode pin in mains types. If metallised valves are used in any set not designed for the purpose, care should be taken that the coating does not cause a short circuit by coming into contact with the screening or wiring of the receiver.





## SOME FEATURES OF MARCONI 2-VOLT VALVES

Here is a range of valves constituting an outstanding example of the enormous progress which has recently been made in the manufacture of two-volt types.

Only a few years ago it was customary to regard the 2-volt valve as a comparatively inefficient substitute when 4-volt or 6-volt valves could not be employed owing to difficulties in the charging of accumulators. Now the position provides a perfect contrast.

The Marconi 2-volt range, described in the following pages, attains such extraordinary efficiency that it can be said with complete truth that in the ordinary battery operated domestic receiver, no greater sensitivity is either desirable or practicable. The series contains a type for almost every set, the wide choice enabling an ideal combination to be obtained in every case.

Marconi 2-volt valves are the outcome of years of intensive research, and besides being absolutely up-to-the-minute in design, contain many novel and important constructional features which directly benefit every user. The bridge method of assembly, with mica distance pieces interlocking every electrode, eliminates the slightest variation in characteristics—an obvious superiority—and at the same time makes inter-electrode contact a practical impossibility. The multiple filament suspension, rigidly supporting the filament along its whole length, reduces microphone effects to a negligible level—a particular advantage in portable receivers. A host of other details, among which are higher filament efficiencies, better vacuum, and smaller electrode clearances, all contribute towards an unequalled standard of useful perfection. Finally, the most modern methods of assembly and testing ensure consistency and reliability on a par with such unusual efficiency.



# RAPID REFERENCE FOR MARCONI 2-VOLT VALVES

POSITION.	CIRCUIT.	COPPLING.	VALVE TYPE	PAGE	REMARKS.
H.F. Amplifier ...	Screen Grid ...	Tuned anode, Tuned Grid or Tuned Transformer ...	S.22	10	For a single H.F. Stage.
	Screen Grid ...	Tuned Anode, Tuned Grid or Tuned Transformer ...	S.21	10	For multi-stage H.F. Amplifiers.
	Non Screen Grid Portables ...	Choke or Semi-aperiodic ...	HL.2	...	—
	Neutralised (non Screen Grid) ...	Tuned Grid or Tuned Transformer ...	HL.210	...	HL.2 may cause instability.
	Leaky Grid ...	Resistance ...	H.2	...	Generally without previous H.F.
Detector ...	Anode Bend ...	Transformer ...	HL.2 or HL.210	...	HL.2 usually preferable
		Resistance ...	H.2, HL.2 or HL.210	...	For small inputs.
		Transformer ...	HL.2 or L2/b	11-12	Low Ration Transformer former advisable.
Power Grid ...		Resistance or Transformer L2/b	...	12	Anode Resistance 15,000-30,000 ohms.
		Resistance ...	HL.2	...	Also Transformer coupled Portables.
1st L.F. Amplifier (not output)	2 L.F. Stages ...	Transformer ...	L2/b	...	—
	2 L.F. Stages ...	Direct Output to Speaker	LP.2	...	12
	Single L.F. ...		...	13	Or PT 240 Pentode in some Portables.
Power (output) ...	Single L.F. ...	Choke or Transformer Output ...	PT.240 or PT.2	15	Pentode
	2 L.F. Stages ...	—	P.2, P2/b or P.240	...	For Moving-Coil Speaker
Oscillator (Super-heterodyne)	Combined Oscillator-detector ...	Portable Super-hets	DG.2	...	14
	Separate Oscillator ...	—	L2/b or L.210	12	Double-grid



S 22  
Screen Grid 2-volt  
Amplifying Valve.



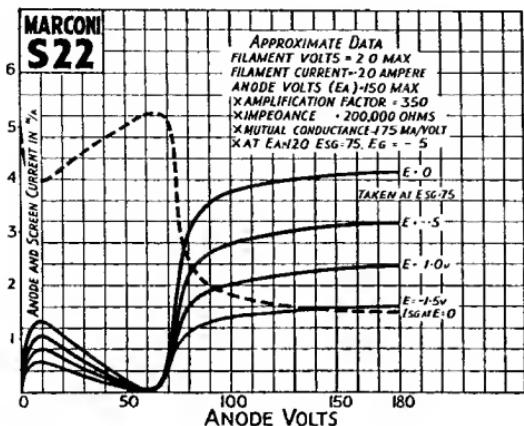
P 2  
Super Power 2-volt  
Output Valve.



DG 2  
2-volt Four Electrode  
Double Grid Valve.

**Typical Valves from the 2-volt Marconi range.**

## MARCONI 2-VOLT VALVES



### S 22, Screen Grid, 20/-

S.22 is a screen grid amplifier with an exceptionally high mutual conductance and very low self-capacity. It is ideal for receivers having a single H.F. stage, and also for some two H.F. sets, providing longer range, greater volume and perfect stability.

S.22 is available with a metallised bulb if desired.

Approximate Operating Data.

Anode Volts.	Screen Volts.	Grid Bias.
120-150	75	0 to -1.5

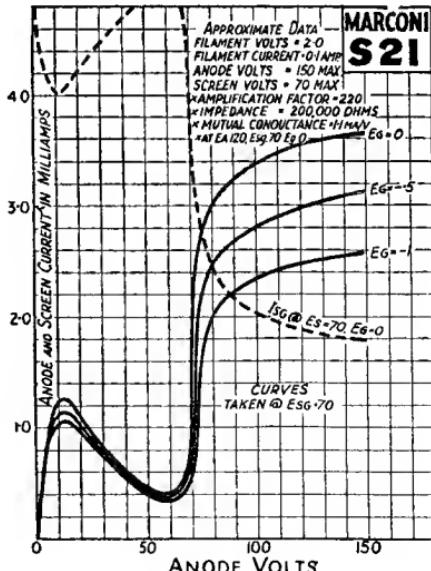
### S 21, Screen Grid, 20/-

S.21 is a screen grid amplifier similar in design to Marconi S.22, but intended for multi-stage H.F. amplifiers, including 2 S.G. portables, in which a lower stage gain is preferable. An exceptionally small self-capacity ensures perfect stability, while the small current consumption is of particular value to users of large receivers.

S.21 is available with a metallised bulb if desired.

Approximate Operating Data.

Anode Volts.	Screen Volts.	Grid Bias.
120-150	70	0 to -1.5



*G. Marconi*

# MARCONI 2-VOLT VALVES

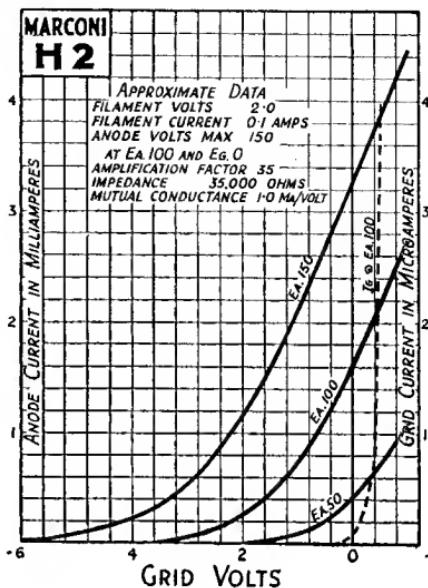
## H 2, High Magnification, 8/6

H.2 is a high magnification valve suitable for the earlier stages and combining a large amplification factor with a moderate value of impedance. It is particularly suitable for the detector position in portable and other receivers, followed by resistance or transformer coupling, and for the initial L.F. stage.

H.2 is available with a metallised bulb if desired.

### Approximate Operating Data.

Circuit.	Anode Volts.	Grid Bias.
Grid Leak Detector	50-120	0 to -1.5
L.F. Amplifier	100-150	-1.5

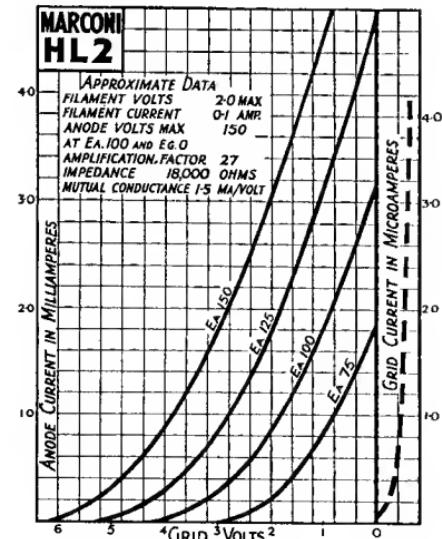


## HL 2, Medium Magnification, 8/6

HL.2 is a general purpose valve of high efficiency, designed to provide greater amplification in modern circuits than is obtainable from Marconi HL.210. Its low impedance renders it of special value where transformer coupling is employed, maintaining reproduction of exceptional quality, while it also possesses definite anti-microphonic properties.

H.L.2 is available with a metallised bulb if desired.

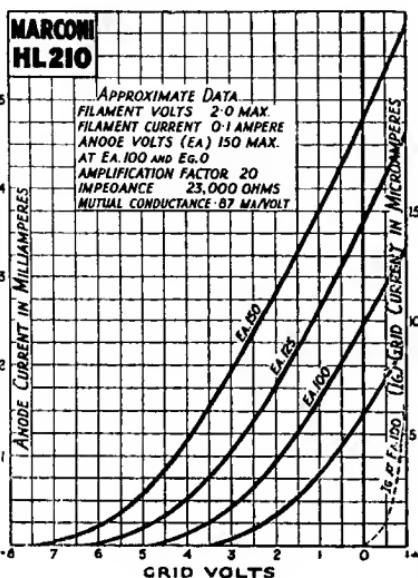
### Approximate Operating Data.



Anode Volts.	Grid Bias Volts.
As Grid 50-150	Leak Detector Connect grid leak to positive end of filament
As Anode 75-150 In Low 100-150	Bend Detector -1½ to -4½ Frequency Amplifier -1½ to -3

*G. Marconi*

# MARCONI 2-VOLT VALVES



## L 2/B, Low Magnification, 8/6

L.2/b is primarily a low frequency amplifying valve of high efficiency which combines a large amplification factor with a comparatively low impedance. It provides a high stage gain with transformer coupling and will deal with large inputs without overloading. L.2/b is also an excellent detector, either of the anode-bend or power-grid type when preceded by one or more H.F. stages.

### Approximate Operating Data.

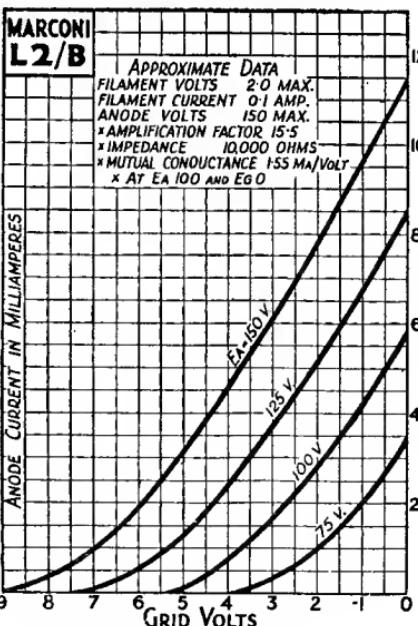
Circuit.	Anode Volts.	Grid Bias.
Power-grid detector	80-150	Connect grid leak to positive end of filament.
Anode bend detector	50-150	-1½ to -7½
L.F. amplifier ...	75-150	-1½ to -6

## HL210, Medium Magnification, 8/6

H.L. 210 is a general purpose valve of similar characteristics but rather lower mutual conductance than Marconi H.L.2. In addition to its suitability for sets in which H.L.2 might, on account of its very high efficiency, cause instability, H.L.210, having a small bulb, is particularly recommended for portable sets in which space is limited.

### Approximate Operating Data.

Circuit.	Anode Volts.	Grid Bias.
Grid leak detector	50-150	-1½
Anode Bend detector	100-150	-3 to -6
L.F. amplifier ...	75-150	-1½ to -4½
H.F. amplifier ...	50-150	Zero or negative according to circuit.



## MARCONI 2-VOLT VALVES

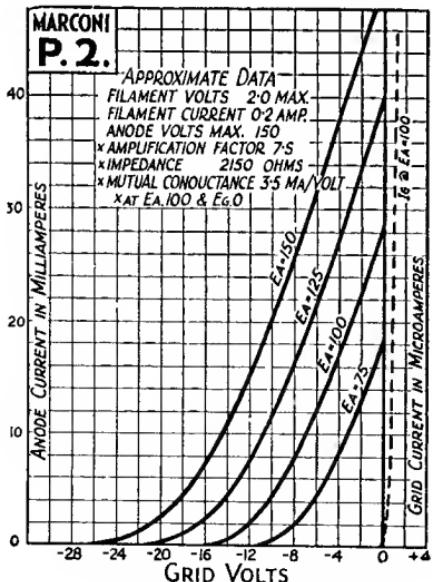
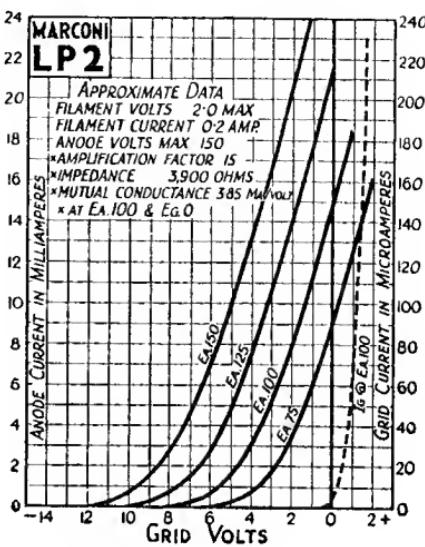
### LP 2, Power, 10/6

LP.2 is a power output valve uniting a very high amplification factor with a normal value of impedance, and thus providing stage magnification comparable with that of a pentode. Its very small consumption of H.T. current renders LP.2 ideal for the output stages of portable and similar receivers.

#### Approximate Operating Data.

Anode Volts.	Negative Grid Bias Volts.	Average Anode Current in Milliamperes.
150	4½	11.5
150	*6	6.8
125	4½	6.0
100	3	5.2
75	1½	4.3

\* For economy in H.T. current.



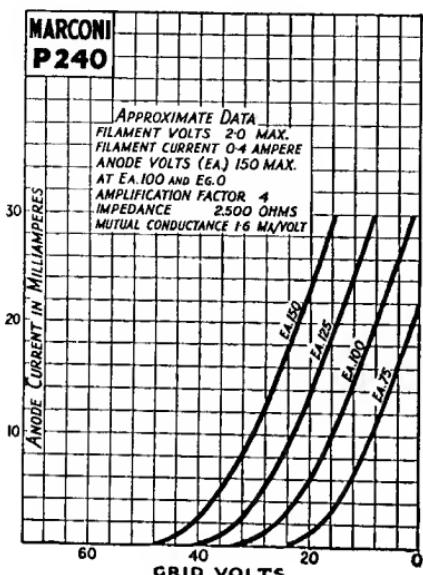
### P 2, Super-Power, 13/6

P.2 is an improved type of super-power output valve, modest in its requirements for H.T. current and providing excellent amplification. It is exceptionally suitable for the operation of sensitive moving coil speakers, its impedance generally matching the average instrument of this type.

#### Approximate Operating Data.

Anode Volts.	Grid Bias Volts.	Average Anode Current in Milliamperes.
150	-10½	17
125	-9	12.5
100	-6	11.2
75	-4½	7.2

## MARCONI 2-VOLT VALVES



### P 240, Super-Power, 13/6

P.240 is a super-power output valve which provides rather greater volume than is obtainable from Marconi P.2. P.240 should thus be used when the available input is sufficient to overload P.2 and when increased output is required. It is an ideal final stage valve for operating a moving coil speaker at moderate volume.

#### Approximate Operating Data.

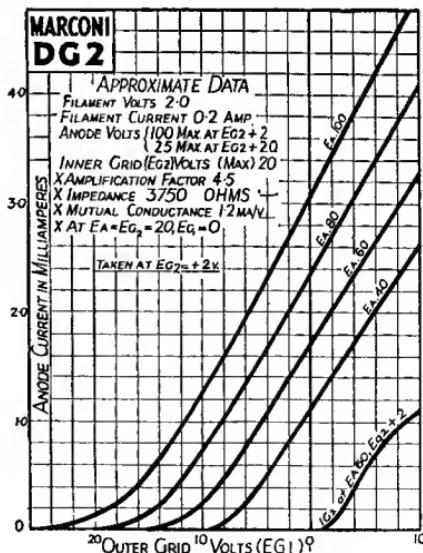
Anode Volts.	Grid Bias.	Average Anode Current.
150	-24	17 m.a.
125	-19.5	14 m.a.
100	-15	11 m.a.

### DG 2, Double Grid, 20/-

DG.2 is a new four-electrode, double grid valve of special design, intended particularly for use in super-heterodyne receivers, principally of the portable type. Its main application is as a combined detector-oscillator, in which position it performs a dual function, thus eliminating the space and current requirements of one valve.

#### Approximate Operating Data.

Anode Volts.	Outer Grid Volts.	Inner Grid Volts.	Anode Current	Inner Grid Current.
+40 to 80	-6 to 15	+2	.25 to .5 m.a.	Almost nil.
+20 to 25	13 to 5	+20	1.5 to 2.0	10 to 12





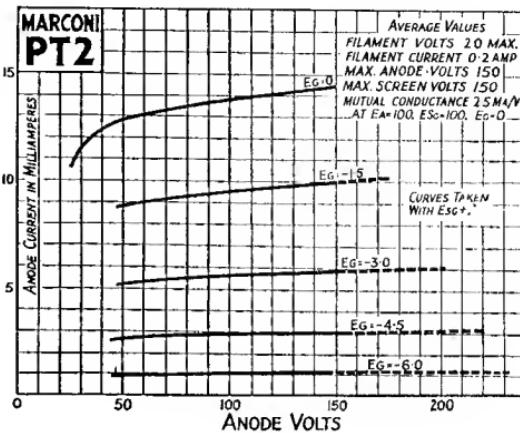
## MARCONI 2-VOLT VALVES

### PT 2, Pentode, 20/-

PT.2 is a new pentode output valve designed particularly for use when economy in current consumption is of first importance. Output is quite adequate for the operation of moving iron speakers, while its small current requirements render PT.2 ideal for many portable and other battery operated receivers, in which its high amplification factor is a real advantage.

#### Approximate Operating Data.

Anode Volts.	Screen Volts.	Grid Bias.	Anode Current.
150	150	-4.5	6.5
125	125	-3	5.8
100	100	-3	3.0

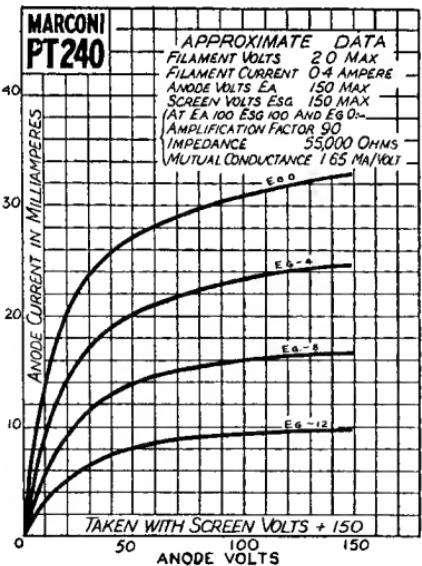


### PT 240, Pentode, 20/-

PT.240 is a pentode output valve suitable, like PT.2, for receivers in which only one L.F. stage is used. Its power output is appreciably greater than PT.2 while it retains the characteristic high amplification factor of the pentode. PT.240 is thus an excellent valve for operating moving coil speakers at moderate volume.

#### Approximate Operating Data.

Anode Volts.	Screen Volts.	Grid Bias.	Anode Current.
120	100	-6	9 m.a.
150	150	-9	16 m.a.





# THE BEST 2-VOLT VALVES FOR EVERY SET

## NON-PORTABLE RECEIVERS

MARCONI VALVE COMBINATION.

RECEIVER.

	H.F.	Det.	1st L.F.	2nd L.F.
<b>Aeonic</b> Battery Radio-Gram	... ...	HL210 (2)	HL2	L2/b P240
<b>Bowyer-Lowe</b> Pentovox 2	...	—	HL2	PT240 —
" " Pentovox 3	...	S22	HL2	PT240 —
" " Radio-Gram	...	S22	H2	PT240 —
" " Vox Populi 4	...	S22	HL2	L2/b P2
<b>Brownie</b> Two-valve	...	—	HL2	LP2 —
" Dominion 3	...	—	HL2	L2/b LP2
" Screen Grid 3	...	S22	HL2	LP2 —
<b>Burndept</b> Screened Etho	...	S22	HL2	PT240 —
" Ethogram	...	S22	HL2	HL210 P2/b
<b>Chakophone</b> S.G.4	...	S22	HL2	L2/b P2
<b>Columbina</b> Model "304"	...	S21 (3)	HL2	P240 —
<b>Cossor</b> Regional 2	...	S22	HL2	PT240 —
" Regional 3	...	S22	H2	LP2 —
<b>Edison Bell</b> Pedestal 2	...	—	H2	L2/b LP2
" Homestead 3	...	—	H2	L2/b LF2
" " Maison 3	...	S22	L2/b	PT240 —
" " Regent 4	...	HL2	HL2	L2/b P2
<b>Ediswan</b> , Three-valve	...	S22	HL2	LP2 —
B.T.H.2	...	S22 (2)	HL2	P240 —
<b>G.E.C.</b> Two-valve	...	—	HL2	LP2 —
" Victor 3	...	—	H2	H2 LP2
" 3-valve 2830	...	—	HL2	L2/b L2/b
" Screen Grid 3	...	S22	HL2	LP2 —
<b>Kolster-Brandes</b> 163...	...	S22	HL2	PT240 —
" " 3 "A"	...	—	HL2	L2/b LP2
" " 3 "B"	...	—	HL2	L2/b LP2
" " "Pup"	...	—	HL2	LP2 —
<b>Lamplugh</b> Chassirad 2	...	—	L2/b	LP2
" Chassirad 3	...	—	L2/b	L2/b LP2
" Silver Ghost 3	...	—	HL2	L2/b LP2
" Chass. S.G.3	...	S22	HL2	LP2 —
" Popular 3	...	—	L2/b	L2/b LP2
<b>Lissen</b> Colossus	...	—	HL2	LP2 —
<b>McMichael</b> Dimic 3	...	—	H2	HL210 LP2
" Dimic S.G.3	...	S22	HL2	PT240 —
" Battery 3	...	S22	HL2	PT240 —
<b>Marconiphone</b> Model "22"	...	—	HL2	LP2 —
" Model "23"	...	—	L2/b	LP2 —
" Model "32"	...	—	HL2	H2 P2
" Model "35"	...	S22	L2/b	LP2 —
" Model "39"	...	S22	HL2	LP2 —
" Model "44"	...	S21 (2)	HL2	P240 —
" Model "56"	...	S21 (3)	HL2	P2 —
" Model "221"	...	—	HL2	PT240 —
<b>Ormond</b> Screen Grid 3	...	S22	HL2	PT240 —
" Two-valve	...	—	HL2	LP2 —
" Three-valve	...	—	HL2	L2/b
" Radio-Gram R301	...	HL2	L2/b	LP2 —
<b>Pye</b> Popular two	...	—	HL2	LP2 —
" Presentation 2	...	—	HL2	PT240 —
" Four-model 460	...	S22	HL2	L2/b P240
<b>Red Star</b> , Two...	...	—	HL2	LP2 —
" " Three	...	—	HL2	HL210 LP2
<b>Servis</b> 5/F.V.T./S	...	HL210	HL2	L2/b LP2





## RADIO PRESS CIRCUITS

### "AMATEUR WIRELESS"

	H.F.	DET.	1st L.F.	2nd L.F.
Best by ballot 3	S22	HL2	PT240	—
Clarion 3	S22	HL2	P2/b	—
Ether Searcher (1930)	S22	HL2	LP2	—
Everybody's 3	S22	HL2	P2	—
Exhibition 3	S22	HL2	LP2	—
Horizon 4	S22	HL2	L2/b	P2
Music Leader	S22	HL2	L2/b	PT240
Talisman 2 (!1930)	—	HL2	LP2	—
Talisman 3	S22	HL2	P2	—
Room to Room 2	—	L2/b	LP2	—
Ether Searcher (1931)	S22	L2/b	LP2	—

### "MODERN WIRELESS"

Brookman's 3	S22	HL2	LP2	—
Conqueror	S21 (2)	HL2	PT240	—
Exhibition 5	S21 (2)	HL2	HL2	P240
M.W. Short Wave 3	—	HL2	L2/b	LP2
Olympia 5	S21 (2)	HL2	L2/b	PT240
Star-turn 2	—	HL2	LP2	—
World-wide 5	HL2 (2)	HL2	L2/b	P240
Superportable	S22	HL2	L2/b	LP2
Portable 4	S22	HL2	L2/b	LP2

### "POPULAR WIRELESS"

Easy Change 3	—	HL2	L2/b	P2
Exhibition 4	S22	HL2	L2/b	P240
Magic 2	—	HL2	LP2	—
Magic 3	—	HL2	L2/b	P2
Magic 4	S22	HL2	L2/b	P240
P.W.4	S22	HL2	L2/b	P240
Sharp-tune 2	—	HL2	LP2	—
Three Coil 3	S22	HL2	LP2	—
Titan 3	S22	HL2	LP2	—
Pop Vox	S22	HL2	L2/b	—
Comet 3	—	HL2	L2/b	P2

### "WIRELESS CONSTRUCTOR"

Air Commander	HL2 & S21	HL2	P240	—
Champion 3	S22	HL2	PT240	—
Chassis 3	—	HL2	HL210	LP2
Explorer 2	—	HL2	LP2	—
Explorer 4	S22	HL2	L2/b	P240
Night Watchman	S22	HL2	LP2	—
Paratune 3	—	HL2	L2/b	P2
Pushpull 5	S22	L2/b	L2/b	P240
Vee-Kay 3	S22	HL2	LP2	—
Extensor Four	S22	HL2	L2/b	P2
Selectivity Three	—	HL2	L2/b	P2
Paratune 4	S22	HL2	L2/b	P2
Vi-King Portable	S22	HL2	L2/b	P2

## HOME CONSTRUCTION & KIT SETS

	H.F.	Det.	1st L.F.	2nd L.F.
Brown Screened Grid 3	S22	HL2	LP2	—
Cossor Melody Maker (1927)	—	H2	HL2	LP2 or P2
Cossor Melody Maker (1928)	S22	HL2	LP2	—
Cossor Melody Maker (1929)	S22	HL2	LP2	—
Cossor Empire Melody Maker	S22	HL2	LP2	—
Cossor Four-Valve	S22	HL2	L2/b	P240
Ediswan R.C. Threesome	—	H2	HL2	LP2 or P2
Lamplugh Chassirad S.G.3	S22	HL2	LP2	—
Lotus S.G. Kit Set	S22	HL2	PT240	—
McMichael Screened Dimic 3	S22	HL2	LP2	—
Mullard Master Three	—	H2	HL2	LP2 or P2
Mullard Master Three Star	—	HL2	L2/b	P2 or P240
Mullard Orgola (1930)	S22	HL2	LP2	—
Mullard Orgola (1931)	S22	HL2	PT240	—
Mullard Orgola Four	S21 (2)	HL2	PT240	—
Osram Music Magnet 3	S22	HL2	LP2	—
New Osram Music Magnet 4	S21 (2)	H2	P2/b	—

P2, P2/b or PT240 Pentode may generally be used in place of LP2 in the final stage.





## SUPER-HETERODYNES

	Osc.	Ist Det.	I.F.	I.F.	2nd Det.	Power.
" Amateur Wireless," Century Super	L210	H2	S22	S22	HL2	P2
" Wireless Magazine," Super 60	L210	H2	S22	S22	HL2	P2
" Modern Wireless," Simplicity Super	L2/b	S22	S22	—	HL2	P2
" Wireless World, Super Selective 5	L2/b	S22	S22	—	HL2	P2

## PORTABLE SETS

	H.F.	Det.	1st L.F.	2nd L.F.
Aeonic Transportable 5	... ...	HL.2 (2)	H.2	HL.2 P.215
" Suitcase 3	... ...	HL.2	H.2	HL.2 P.215
" Screened Grid 4	... ...	S.22	HL.2	L2/b P.215
Ampilon Screened 4	... ...	S.21 (2)	HL.2	PT.240 —
Burndept Portable	... ...	S.22	H.2	HL.2 P.2
Burgoyne Super Screen Portable	... ...	S.22	H.2	HL.2 P.2
Burgoyne Screen Grid 4	... ...	S.22	H.2	HL.2 PT.240
" Transport de Luxe	... ...	HL.2 (2)	H.2	HL.2 P.215
" Pentode Portable	... ...	HL.2 (2)	H.2	L2/b PT.240
" Model "A"	... ...	HL.2	H.2	HL.2 P.215
Burne Jones Magnum Portable	... ...	HL.2 (2)	H.2	L2/b P.215
" Suitcase 5	... ...	HL.2 (2)	H.2	L2/b P.215
Chakophone Warwick Portable 5	... ...	HL.2 (2)	HL.2	L2/b P.2
" Junior Portable 4	... ...	HL.2 (2)	HL.2	PT.240 —
Columbia Model "303" A-D	... ...	HL.2 (2)	H.2	L2/b P.215
Decca Transportable "21"	... ...	HL.2 (2)	H.2	L2/b P.215
" Transportable "16"	... ...	HL.2 (2)	H.2	L2/b P.215
Detex 5	... ...	HL.2	H.2	L2/b P.215
Dorian S.G.4	... ...	S.22	HL.2	L2/b P.215
Dunham Portable 5	... ...	HL.2 (2)	H.2	HL.2 P.215
" S.G.4	... ...	S.22	HL.2	L2/b P.215
Edison Bell Maison Screen 3	... ...	S.22	L2/b	PT.240 —
" Picnic Portable	... ...	HL.2 (2)	H.2	L2/b P.215
E.R.P. S.G. Suitcase 4	... ...	S.22	HL.2	HL.2 P.215
" Portable 5	... ...	HL.2 (2)	HL.2	HL.2 P.215
G.E.C. Screen Grid 4	... ...	S.22	H.2	L2/b P.215
Halcyon De Luxe Cabinet 5	... ...	HL.2 (2)	H.2	L2/b P.215
" Screen Grid 4	... ...	S.22	H.2	L2/b P.215
Hart Collins Passport 4	... ...	S.22	H.2	L2/b P.215
" Tourist 5	... ...	HL.2 (2)	H.2	L2/b P.215
Igranic Universal Portable	... ...	S.21 (2)	H.2	L2/b P.215
Kolster Brandes 103-156	... ...	S.22	H.2	HL.2 P.215
Lissen Suitcase Portable	... ...	H.2 and	HL.210	L2/b P.215
" S.G. Transportable	... ...	S.22 (2)	HL.2	PT.240 —
Langham Popular 5	... ...	HL.2 (2)	HL.2	L2/b —
Lotus S.G. Suitcase Portable	... ...	S.22 (2)	HL.2	PT.240 —
McMichael Super Screen 4	... ...	S.21 (2)	HL.2	PT.240 —
" Super Range Portable	... ...	S.22	H.2	L2/b LP.2
" Super Range 4	... ...	S.21 (2)	HL.2	PT.240 —
Marconiphone "43"	... ...	L2/b	L2/b	H.2 P.215
" " 53"	... ...	HL.2 (2)	H.2	HL.2 P.215
" " 55"	... ...	HL.2 (2)	HL.2	L.210 P.215
Murphy B4	... ...	S.22	HL.2	HL.2 P.215
National Portable	... ...	HL.2 (2)	H.2	L.210 P.215
Ormond Suitcase 4	... ...	S.22	H.2	HL.2 P.215
" Portable 5	... ...	HL.2 (2)	HL.2	L2/b P.215
Phillips Model 2552	... ...	S.22	H.2	L2/b P.215
Portadyne S.G. 4	... ...	S.22	HL.2	L2/b P.215
" Regional 5	... ...	HL.2	H.2	L2/b P.215
Pye Model 2525C	... ...	HL.2 (2)	H.2	L2/b P.215
" Twintriple B4D	... ...	S.21 (2)	H.L.2	LP.2 —
Reece Mace Gnome	... ...	S.22	HL.2	L2/b P.215
Rolls Caydon Phantom Reg.	... ...	S.21 (2)	HL.2	PT.240 —
Selectors Screen Grid 4	... ...	S.22	H.2	L2/b P.2
" Portable 5	... ...	HL.2 (2)	H.2	L2/b P.215
Servis Table 3	... ...	—	HL.2	L2/b P.215
" Suitcase 5	... ...	HL.2 (2)	HL.2	L2/b P.215
Symphony 5-valve Portable	... ...	HL.2 (2)	H.2	L.210 P.215
Truphonic Melo-set	... ...	HL.2 (2)	H.2	HL.2 P.215
" Melo-Grande	... ...	S.22	H.2	HL.2 P.215
Ultra Transportable 5...	... ...	HL.2 (2)	HL.2	HL.2 P.215





Marconi  
H 410, HL 410, L 410  
General purpose types



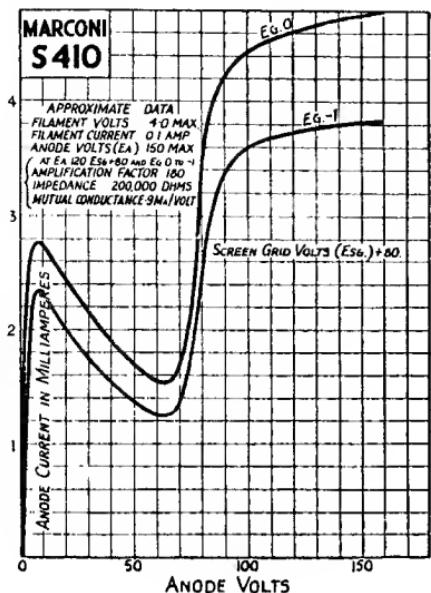
Marconi  
S 410 & S 610  
Screen Grid



Marconi  
P 625 & P 625a  
Super Power Output  
Valve

**Typical Valves from the 4-volt and 6-volt  
Marconi range.**

# MARCONI 4-VOLT VALVES



## S410, Screen Grid, 20/-

S410 is a general purpose screen grid valve of high efficiency, suitable both for single H.F. stages and multi-valve H.F. amplifiers.

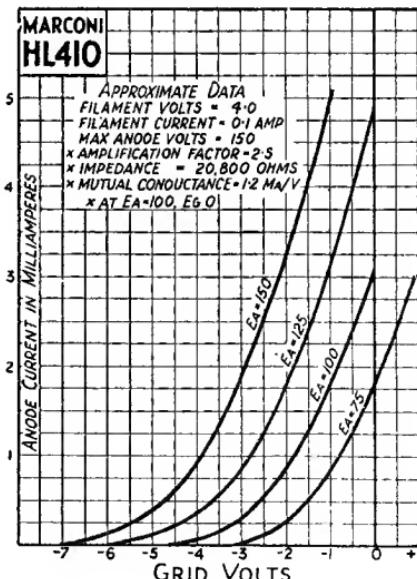
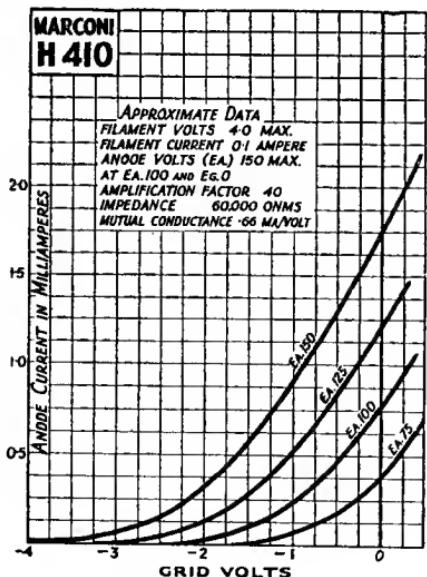
## H 410,

## High Magnification, 8/6

H410 is a high magnification valve for the earlier stages of receivers. It is an excellent detector or initial L.F. amplifier, when followed by resistance or low ratio transformer coupling.

## HL 410, Medium Magnification, 8/6

HL.410 is the general purpose valve of the 4 volt range, equally efficient as detector or H.F. or I.F. amplifier and with transformer or resistance coupling.





## MARCONI 4-VOLT VALVES

### L 410, Low Magnification, 8/6

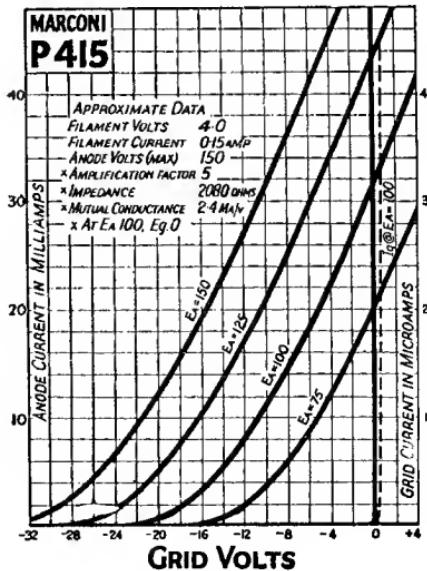
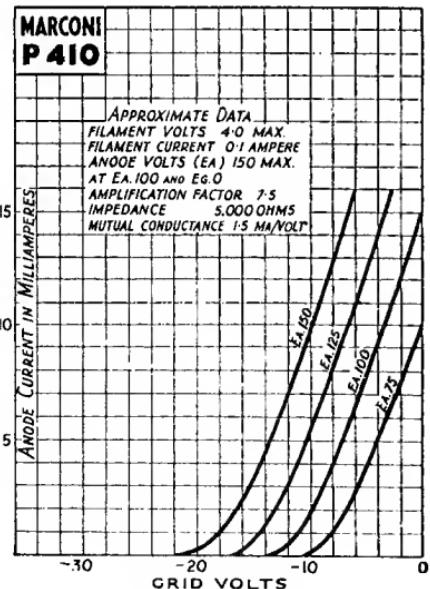
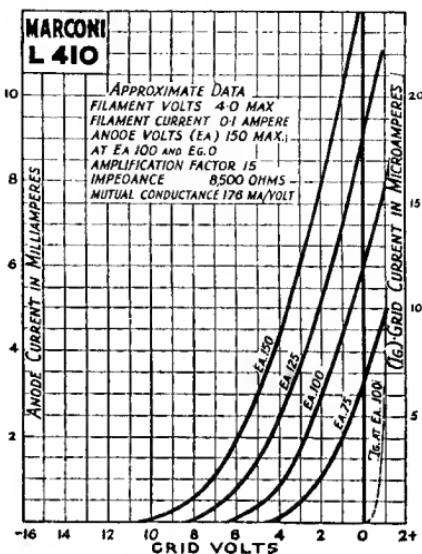
L410 is primarily a low frequency amplifying valve for use with transformer coupling. It may also be employed as detector when preceded by one or more H.F. stages.

### P 410, Power, 10/6

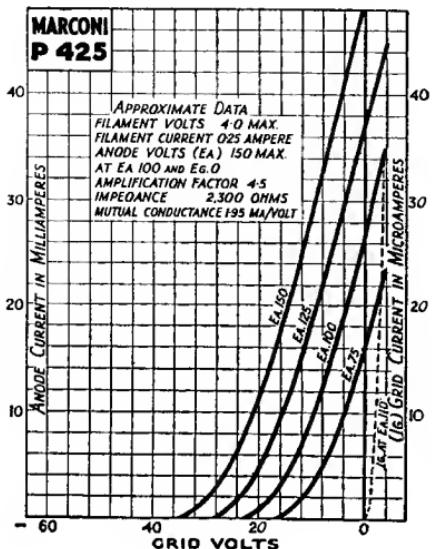
P410 is a power output valve for operating moving iron and similar speakers. Its small current consumption renders it particularly valuable for entirely battery operated receivers.

### P 415, Super Power, 13/6

P415 is a super-power output valve providing sufficient volume for use with sensitive moving coil speakers.



# MARCONI 4-VOLT VALVES



Screen Volts 100

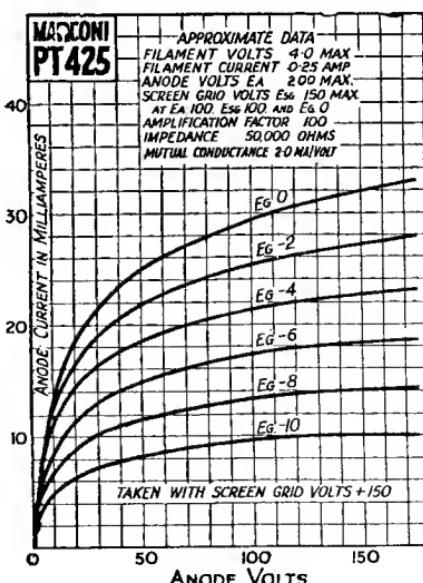
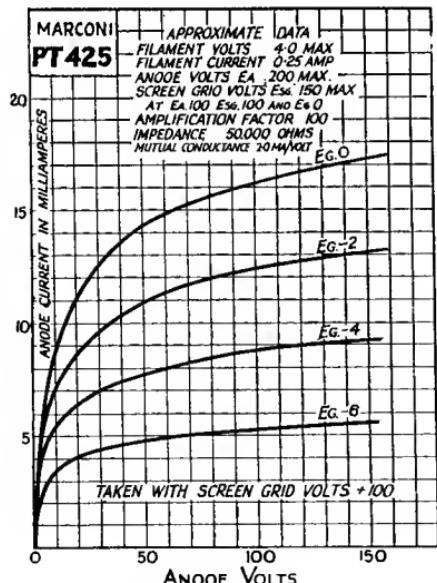
## P 425, Super Power, 13/6

P425 is a super-power output valve for use with moving coil and similar speakers, providing adequate volume for most purposes. The filament may if desired be heated by alternating current in a suitable circuit without producing hum.

## PT 425, Pentode, 20/-

PT425 is a power pentode valve for receivers having a single L.F. stage. It provides high stage gain and ample output for most purposes.

Screen Volts 150





## MARCONI 6-VOLT VALVES

### S 610, Screen Grid, 20/-

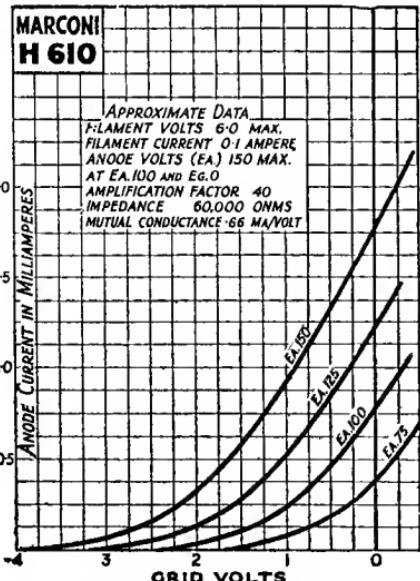
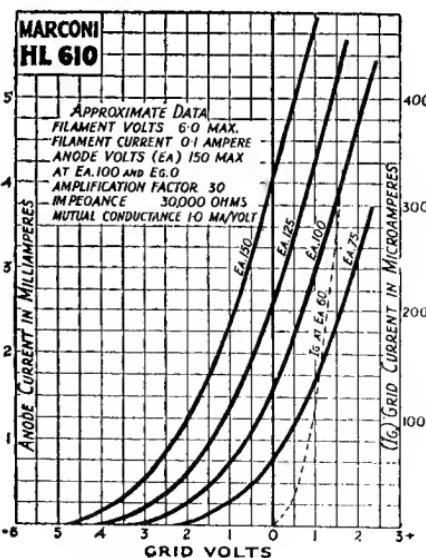
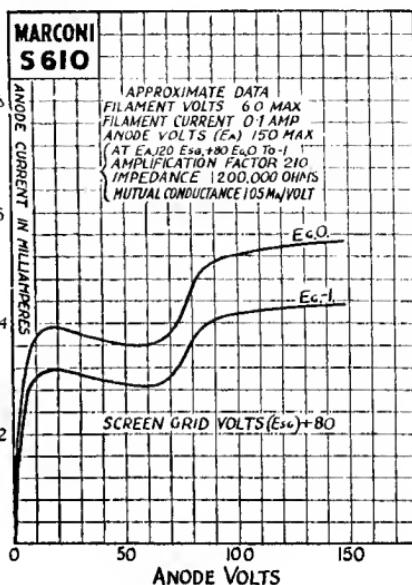
S610 is a high efficiency screen grid amplifier equally suitable for use in single H.F. stages and in multi-valve instruments.

### H 610, High Magnification, 8/6

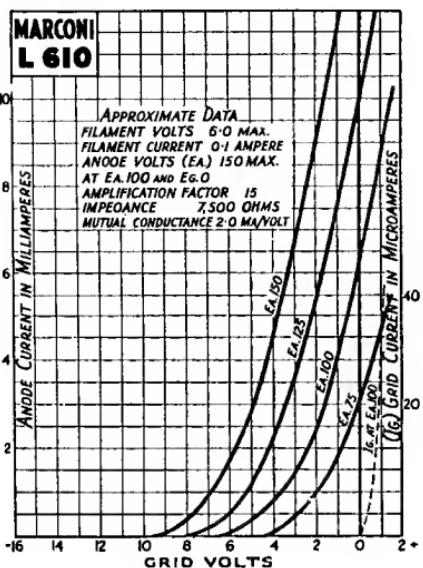
H610 is a high magnification type for use as detector or initial L.F. amplifier followed by resistance or low ratio transformer coupling.

### Marconi HL 610, 8/6

HL610 is the general purpose valve of the 6 volt range. It is an excellent detector and H.F. or L.F. amplifier.



# MARCONI 6-VOLT VALVES



## L 610, Low Magnification, 8/6

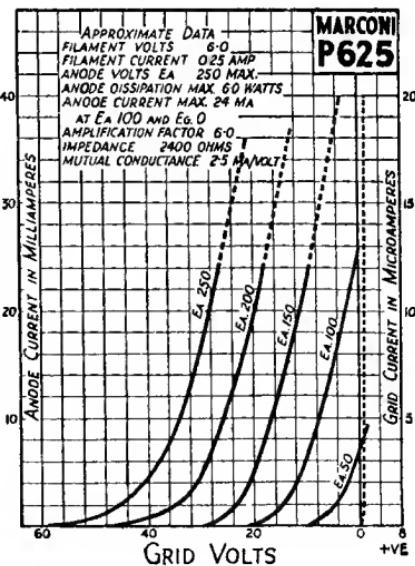
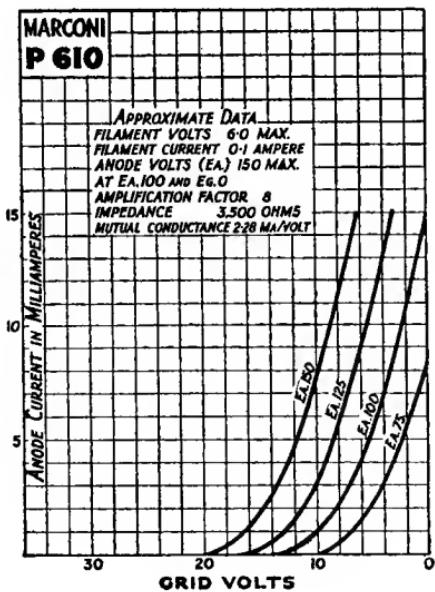
L 610 is primarily a low frequency amplifying valve for first stage use, but is also largely used as detector when preceded by several H.F. stages.

## P 610, Power, 10/6

P 610 is a power output valve of modest current requirements and providing sufficient volume for most purposes.

## P 625, Super-Power, 13/6

P 625 is a super-power output valve for anode voltages up to 250. It is suitable for operating moving coil speakers at sufficient volume for a large room.



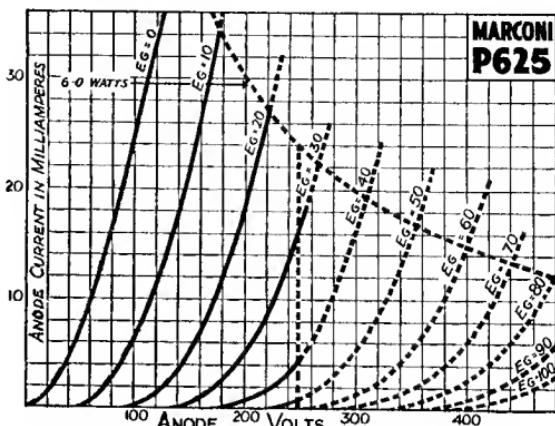


# MARCONI 6-VOLT VALVES

## P 625A, Super Power, 13,6

P625A is a super-power valve of similar design to P625 but for anode voltages not exceeding 200. The power output is sufficient for moving coil volume in a large room.

Anode Volts.	Grid Bias.	Average Anode Current.
120	-19 1/2	16 m.a.
160	-28 1/2	20 m.a.
200	-39	25 m.a.

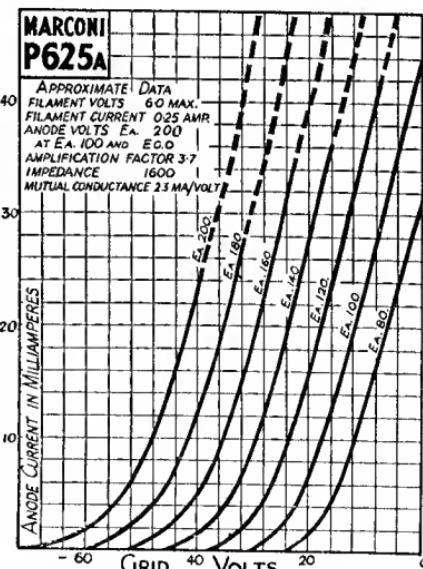
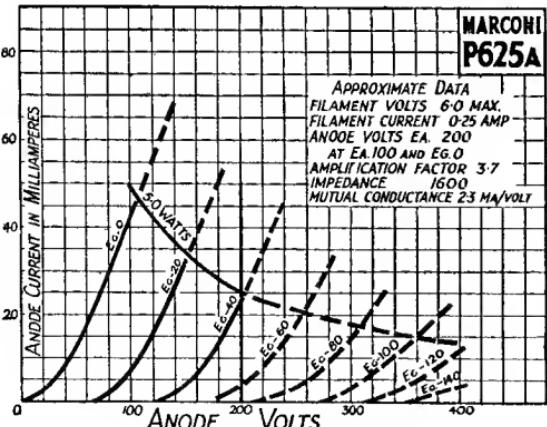


Anode Volts, Anode Current  
Curve for P 625.

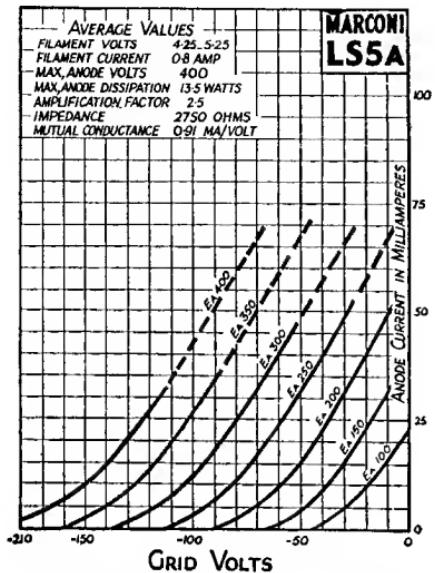
Approx.  
Operating  
Data.  
P625A, above.  
P625, right.

Anode Volts.	Grid Bias.	Average Anode Current.
250	-26	24 m.a.
200	-20	19 m.a.
150	-14	14 m.a.
100	-7	10 m.a.

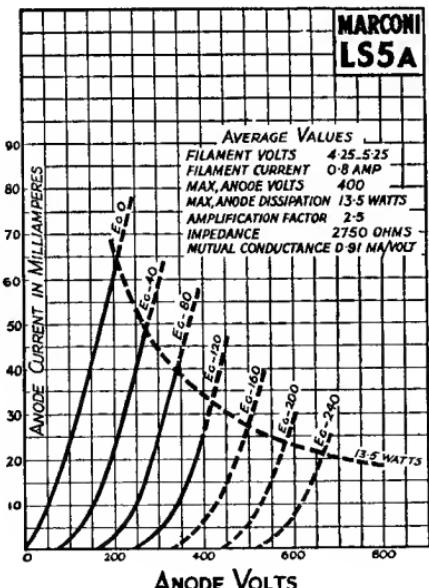
Anode Volts, Anode Current Curve for P625A



# MARCONI 6-VOLT VALVES



Anode Volts—Anode current curve for LS5A

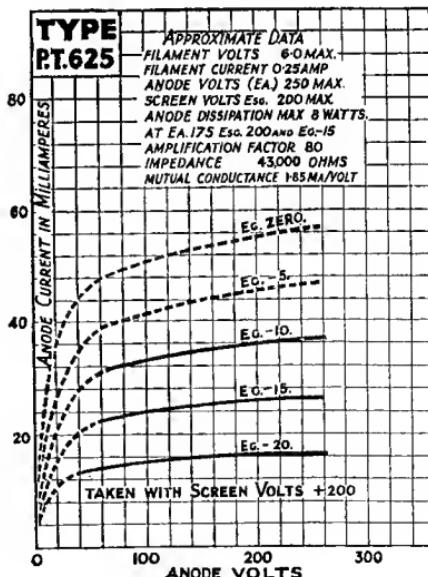


## LS5A, High Power, 25/-

LS5A is a high power output valve for anode voltages up to 400. The output is sufficient to operate a moving coil speaker at considerable volume, the filament being heated from an accumulator or by alternating current.

## PT 625, Pentode, 25/-

PT625 is a super-power pentode for anode voltages up to 250. The filament may be heated by an accumulator or by alternating current, while the output is ample for operating moving coil speakers.

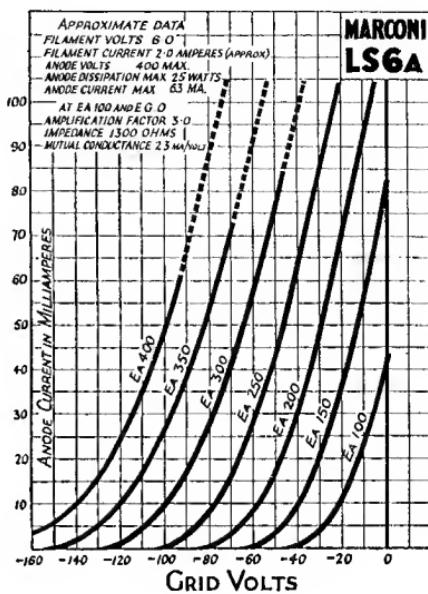




# MARCONI 6-VOLT VALVES

## LS 6A, High Power, 30/-

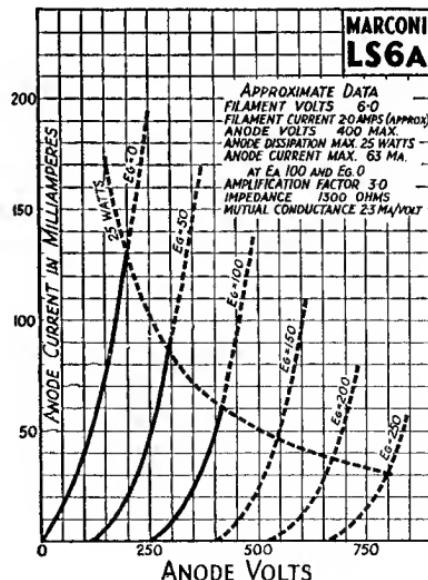
LS6A is a high power output valve for use in large receivers, radio grams, public address equipments, etc., providing output enough for several speakers. The maximum anode voltage is 400 while the filament may be heated by alternating current if desired. It is generally advisable to operate LS6A entirely from a mains supply.



Anode Volts, Anode current curve for LS6A

### Approximate Operating Data for LS6A.

Anode Volts.	Grid Bias.	Average Anode Current.
200	-34	40 m.a.
250	-48	47 m.a.
300	-60	55 m.a.
350	-76	60 m.a.
400	-91	63 m.a.



## SOME FEATURES OF MARCONI MAINS VALVES

Marconi Mains Valves are made in two distinct ranges, one for receivers operating from Alternating Current, and one for Direct Current circuits. Both ranges comprise types for all popular circuits and embody advanced constructional features.

The original Marconi mesh anode is retained and enlarged to give still more effective cooling, thus preventing grid emission and eliminating the least possibility of distortion. A new grid construction provides for finer clearances with enhanced rigidity, and now the entire electrode system is meticulously and permanently aligned by accurately punched mica bonding plates. These mechanical features, coupled with a new cathode technique, result in extremely high electrical efficiencies, absolute permanency of characteristics through a long useful life and extreme consistency from valve to valve.

Rectifiers, too, are improved and standardised.

**The A.C. Range** has been widened by the introduction of a new high efficiency screen grid, MS.4b, and the novel VMS.4, which solves the problem of satisfactory volume control in powerful receivers. Marconi VMS.4, is the first variable Mu valve on the British market—a further example of Marconi leadership.

Types MH.4 and ML.4 are almost doubled in efficiency, as also is the well-known super-power PX.4. Two new power pentodes are added in MPT.4, with an indirectly heated cathode, and PT.4, a slightly smaller, directly heated valve.

**The Marconi indirectly heated D.C. Range** is entirely new, and at one stroke halves the current consumption hitherto demanded by D.C. valves. With these new types, the average 4 or 5 valve receiver can be entirely mains operated with a total power consumption of 50-60 watts, while receiver design and assembly is remarkably simple. This development is another triumph of Marconi research, involving a radical departure from accepted techniques. The types available are the screen grid DS, DH and DL triodes, and DPT pentode. An important feature is the close agreement between the characteristics of corresponding D.C. and A.C. types, either of which may therefore be used with a single design of intervalve circuits and couplings, a point to note if your mains are likely to be converted to A.C.

**A.C. Rectifying Valves** are reduced to three standard types, all with 4-volt filaments. In addition, there is the high voltage GU.1 mercury rectifier, which has come greatly into favour for high power amplifiers and H.T. accumulator charging.

Every one of these Marconi valves can be relied on for the highest standard of dependable efficiency, consistency and long life. For these reasons they are chosen by almost every important public service using Radio.

# RAPID REFERENCE TO MARCONI MAINS VALVES

POSITION.	CIRCUIT.	COUPLING.	TYPE.	PAGE	REMARKS.
H.F. or I.F. Amplifier	Screen Grid (Multi Stage)	Tuned Anode, Tuned Grid or Tuned Transformer ...	MS.4, DS ...	31, 37	These types are for older Receivers and Multi-Stage Circuits.
	Screen Grid (Single Stage)	Tuned Anode, Tuned Grid or Tuned Transformer ...	MS.4B, DS ...	31, 37	High efficiency types for single stages or well established multi- stage Circuits.
	Screen Grid (volume control)	Tuned Anode, Tuned Grid or Tuned Transformer ...	VMS.4 ...	32	Use in Circuits with variable Grid Bias Control.
Neutralised	Neutralised	Tuned Anode, Tuned Grid or Tuned Transformer ...	MHL.4 ...	33	In certain older Receivers.
	I.F. Coupling	... ...	MS.4, MS.4B, DS ...	31, 37	As first Detector in certain Super- het. Circuits.
Detector	Screen Grid (super-het.)	Resistance or Transformer	MH.4, DH, MHL.4 ...	33, 37	Anode Resistance 20-50,000 ohms, with directly or resistance fed Transformers. MHL.4 particu- larly after more than one S.G.
	Leaky Grid, Power Grid or Anode Bend	... ...	ML.4, DL ...	34, 38	Use first two if preceded by Detector only, or with all R.C. coupled L.F. Use MHL.4, with Transformer.
L.F. Amplifier	With 2 L.F. Stages	Resistance or Transformer	PX.4 ...	35	For moderate power, any Medium Impedance Speaker.
Output	Single L.F. (Triode)	Direct, Choke or Trans- former output ...	... ...	35	Large output, medium Impedance Speaker.
	Single L.F. (pentode)	Choke or Transformer	... ...	35	Should be used with Medium Impedance Speaker and correct- ing circuit if necessary.
2 L.F.	... ...	... ...	MPT.4, DPT, PT.4 ...	36, 39	Large output, Medium Impedance Speaker.
Oscillator	Screen Grid	... ...	PX.4 ...	35	Certain super-heterodyne Circuits.
	Triode	... ...	MS.4 ...	31	Usual Super-heterodyne Circuits.
			MHL.4, ML.4 DL. ...	33, 34, 38	

## MARCONI MAINS VALVES



MS4

Indirectly Heated Screen  
Grid Amplifier.



MH4

High efficiency general  
purpose type.



U12

Full Wave Rectifier for  
Large Receivers.

**Some Typical Marconi Mains Valves.**

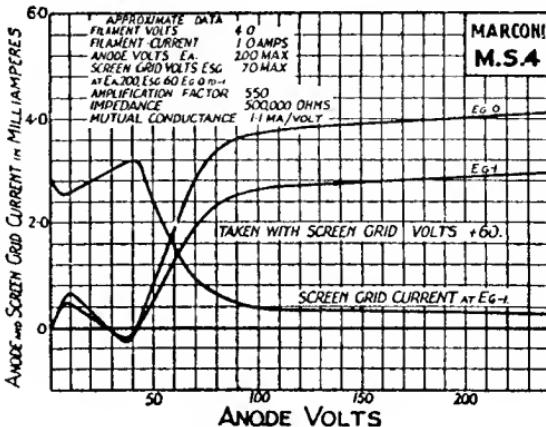


# MARCONI A.C. MAINS VALVES

## MS 4, Screen Grid, 22/6

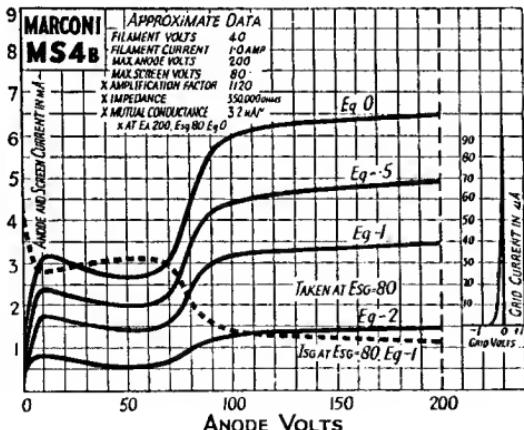
Marconi MS.4 is a "general purpose" screen grid valve for universal use. Possessing an extremely low capacity—less than .002 micro-microfarad—it ensures stable amplification where high conductance valves will not operate, as in many circuits with more than one H.F. stage.

MS.4 is available with metallised bulb if desired.



Approximate Operating Data.

Anode Volts.	Screen Volts.	Grid Bias.
150-200	50-60	-1½ to -3



Approximate Operating Data.

Anode Volts.	Screen Volts.	Grid Bias.
50-100	60-80	-1 to -2

## MS4B, Screen Grid, 22/6

Marconi MS4B is a high conductance screen grid valve especially designed for maximum amplification in single H.F. stage receivers, or in multi-stage circuits where very careful stabilising and screening is used.

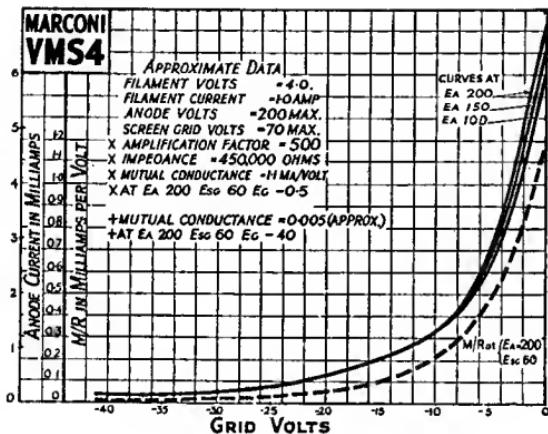
MS4B is available with metallised bulb if desired.



# MARCONI A.C. MAINS VALVES

## VMS 4, Variable Mu. Screen Grid, 22/6

Marconi VMS.4 is a screen grid valve incorporating an entirely new principle of construction which renders it suitable for use as a volume control stage in powerful receivers. The curve falls very gradually from the normal working point at approximately  $1\frac{1}{2}$  volts bias, and does not become horizontal until some 40 volts bias is applied. Since the slope of the curve is related to the amplification, it is easily seen that smooth variation of volume is



obtained with none of the disadvantages attached to the more usual methods of volume control. VMS.4 is also helpful in reducing "cross-modulation" troubles, and is thus a most valuable contribution to modern radio practice.

VMS 4 is available with metallised bulb if desired.

### Approximate Operating Data.

Anode Volts.	Screen Volts.	Grid Bias.
200	60-80	$-1\frac{1}{2}$ to -40

# MARCONI A.C. MAINS VALVES

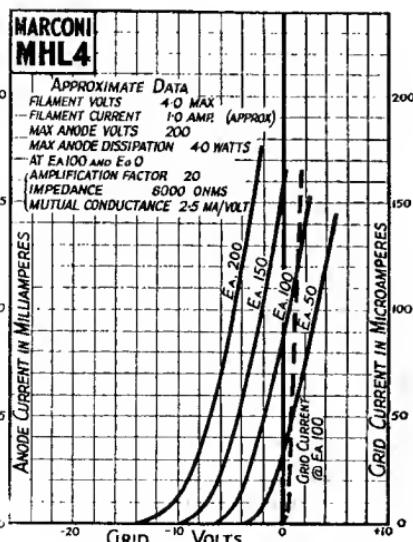
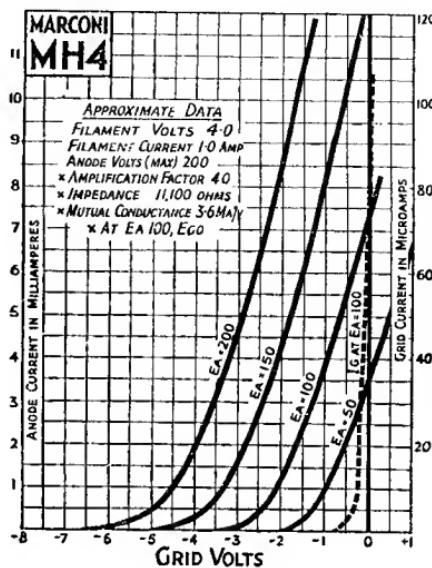
## MH 4, High Magnification, 15/-

Marconi MH.4 is a high efficiency general purpose valve for use as detector or first low frequency amplifier. It may be used with transformer or resistance coupling in the majority of modern circuits.

MH.4 is available with metallised bulb if desired.

### Approximate Operating Data.

Circuit.	Anode Volts.	Grid Bias.
Grid leak detector	50-150	Zero
Anode bend detector	50-200	-1½ to -6
L.F. amplifier	150-200	-2 to -3



## MHL 4, Medium Magnification, 15/-

Marconi MHL.4 is a medium impedance valve used as detector, first L.F. amplifier, or oscillator. In general it will be followed by transformer coupling. May also be employed in neutralised H.F. stages.

MHL.4 is available with metallised bulb if desired.

### Approximate Operating Data.

Circuit.	Anode Volts.	Grid Bias.
Grid Leak Dct.	50-100	0 to + 1½
Anode Bend Dct.	100-200	- 6 to - 12
L.F. Amplifier.	150-200	- 4½ to - 6

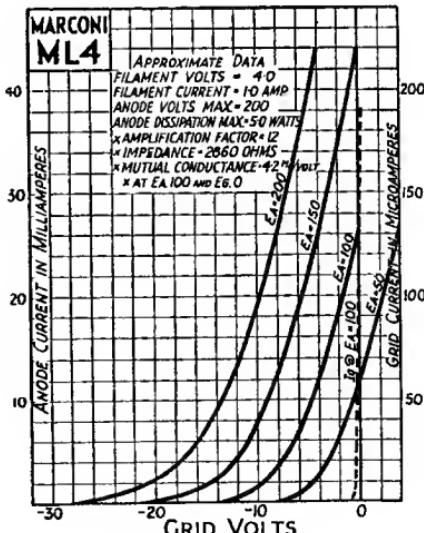
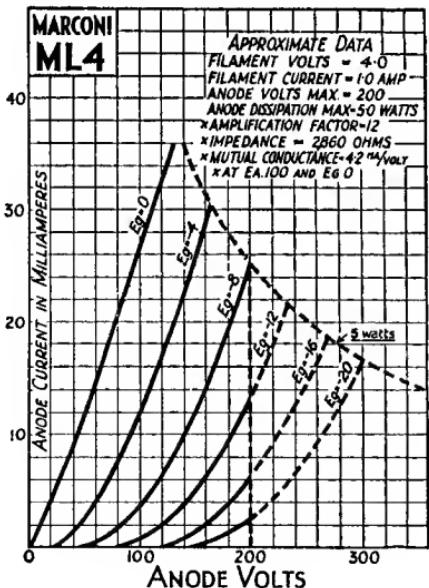
**MARCONI A.C. MAINS VALVES****ML 4, Low Magnification, 17/6**

ML.4 is a low impedance valve for use as a small output valve, initial I.F. amplifier, or oscillator. The high conductance provides a considerable stage gain, so that ML.4 can be recommended where sensitivity is required without the use of a pentode. The output is sufficient for average domestic volume with a moving iron speaker.

**Approximate Operating Data.**

Anode Volts.	Grid Bias.	Anode Current.
100	-4	12 m.a.
150	-6	18 m.a.
200	-8	25 m.a.

**Anode Volts—**  
**Anode Current curve for ML 4.**





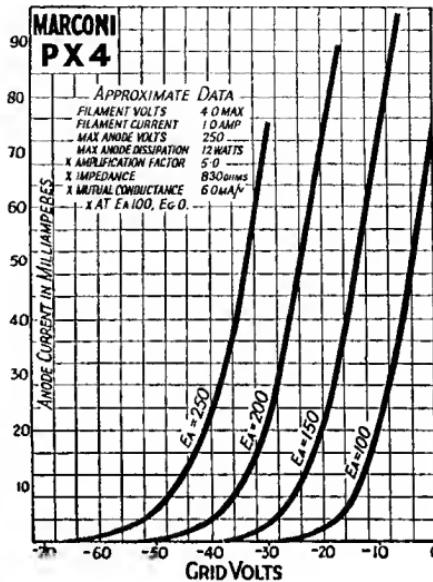
# MARCONI A.C. MAINS VALVES

## PX 4, Super-Power, 20/-

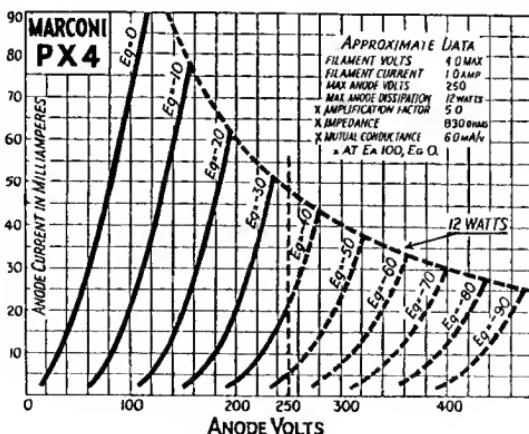
Marconi PX.4 is a super-power output valve for powerful receivers, capable of driving moving coil and large speakers at full volume for dancing, etc., at home and in small halls. When used with moving iron speakers a choke or transformer output is desirable. In many cases 200 volts will be found to provide sufficient volume, as in commercial receivers using this common H.T. potential throughout the set.

Approx. Operating Data.

Anode Volts.	Negative Grid Bias Volts.	Average Anode Current in milliamperes.
250	33	48
200	26	40
150	16	36

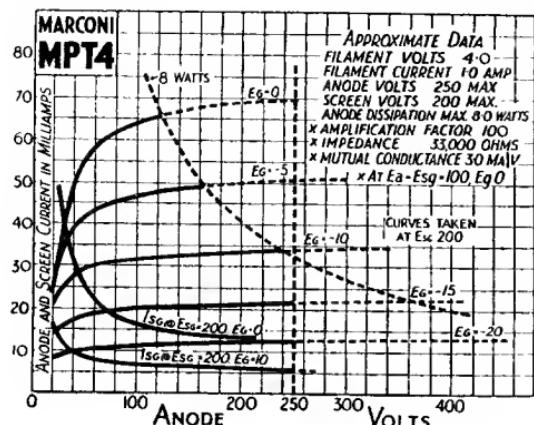


Anode Volts—Anode Current curve for PX 4.



# MARCONI A.C. MAINS VALVES

*g Marconi*



## MPT 4, Pentode, 25/-

Marconi MPT.4 is a new high efficiency indirectly heated pentode giving a large output with a comparatively small input to the grid. It is an ideal output valve for three or four valve receivers having only one low frequency stage, and will operate moving coil or medium impedance moving iron speakers equally well.

Approximate Operating Data.

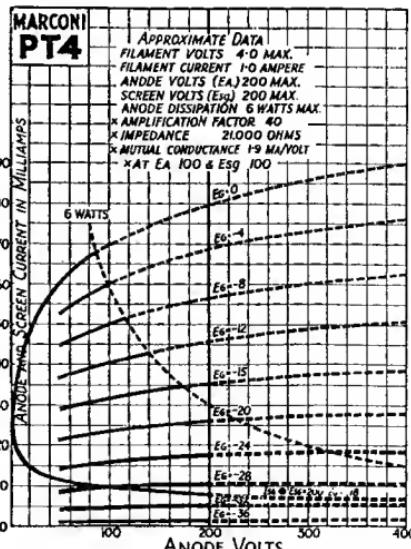
Anode Volts.	Screen Volts.	Grid Bias.	Anode Current.	Screen Current.
250	200	-10.5	32 m.a.	5.5 m.a.

## PT 4, Pentode, 25/-

Marconi PT.4 is a medium size directly heated pentode having slightly less output than MPT.4, and recommended where an indirectly heated valve cannot be used.

Approximate Operating Data.

Anode Volts.	Screen Volts.	Grid Bias.	Anode Current.	Screen Current.
200	200	-18	30 m.a.	7.5 m.a.



*g Marconi*

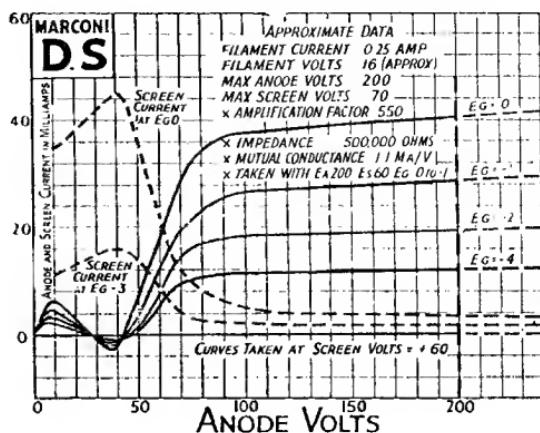


# MARCONI D.C. MAINS VALVES

## DS, Screen Grid, 22/6

Marconi DS is a screen grid valve of high efficiency, having an exceptionally low anode-grid capacity — less than .002 micro-micro-farad — and specially suitable for use in the H.F. stage of all D.C. mains receivers. It is an excellent general purpose screen grid for H.F. or I.F. work, its robust construction ensuring consistently satisfactory service.

DS. is available with metallised bulb if desired.



Approximate Operating Data.

Anode Volts.	Screen Volts.	Grid Bias.
200	50-80	-1½ to -3

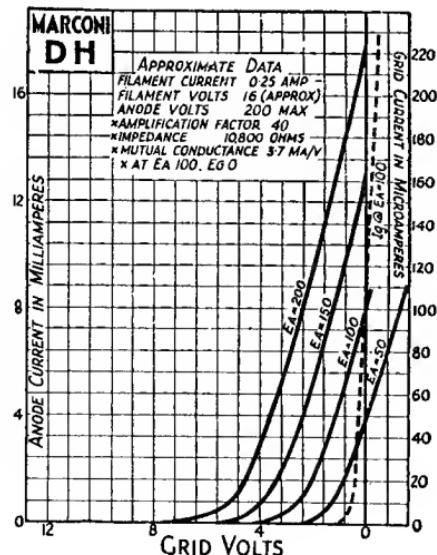
## DH, High Magnification, 15/-

DH is a high efficiency general purpose valve for use as a detector or first low frequency amplifier. It may be used with transformer or resistance coupling in the majority of modern circuits.

DH is available with metallised bulb if desired.

Approximate Operating Data.

Circuit.	Anode Volts	Grid Bias.
Leaky Grid or Power Grid Detector	50-150	Connect lower end of leak to Cathode
Anode Bend Detector	100-200	-2 to -6
Amplifier	100-200	-1½ to -3



# MARCONI D.C. MAINS VALVES



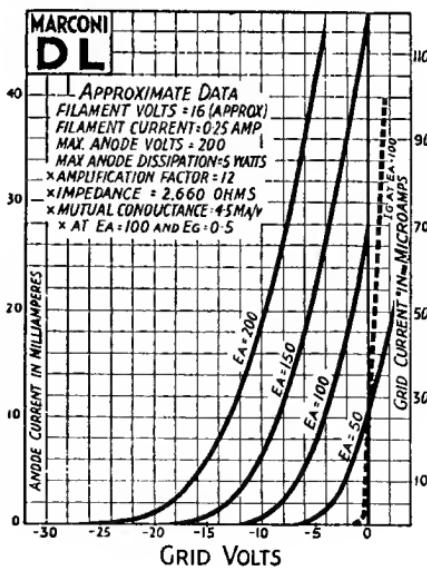
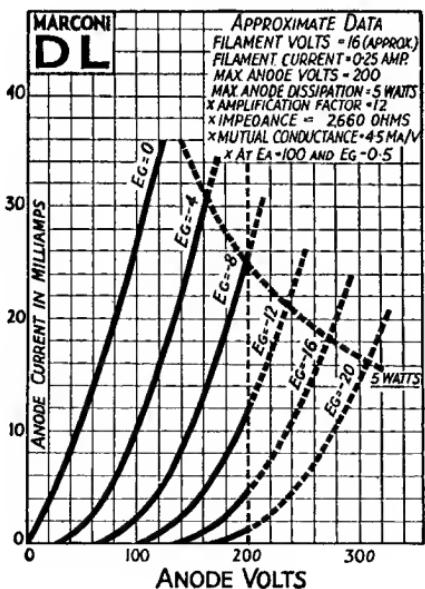
## DL, Low Magnification, 17/6

DL is a low impedance valve for use as a small output valve, initial L.F. amplifier or oscillator. The high conductance provides a considerable stage gain, so that DL can be recommended where sensitivity is required without the use of a pentode. The output is sufficient for average domestic volume with a moving iron speaker.

Approximate Operating Data.

Anode Volts.	Grid Bias.	Anode Current.
100	-4	10.5 m.a.
150	-6	18 m.a.
200	-8	25 m.a.

Anode Volts, Anode current curve for DL.





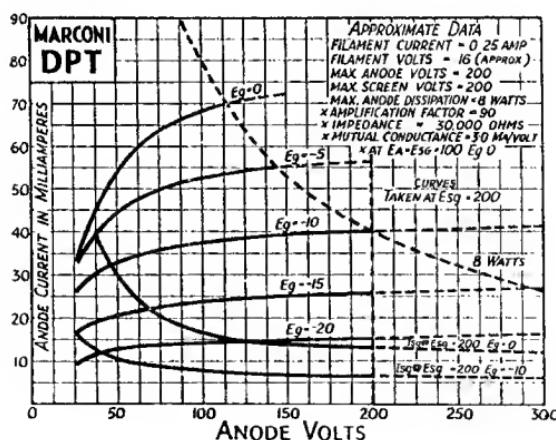
# MARCONI D.C. MAINS VALVES

## DPT, Pentode, 25/-

Marconi DPT is a new high efficiency indirectly heated pentode giving a large output at 200 volts, with a comparatively small input to the grid. It is an ideal output valve for the three or four-valve receiver having only one low frequency stage, and will operate moving coil or medium impedance moving iron speakers equally well.

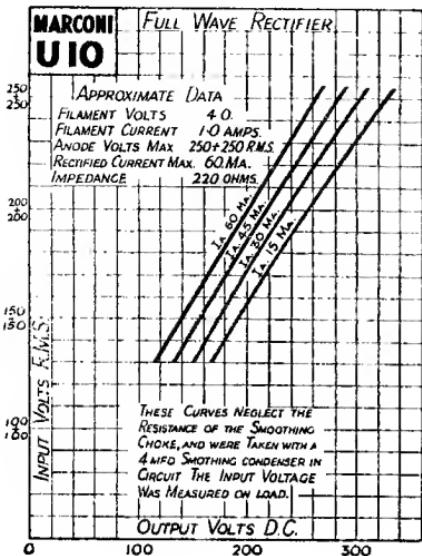
### Approximate Operating Data.

Anode Volts.	Screen Volts.	Grid Bias.	Anode Current.	Screen Current.
200	200	-10	40 m.a.	6 m.a.



# MARCONI RECTIFIERS

G. Marconi

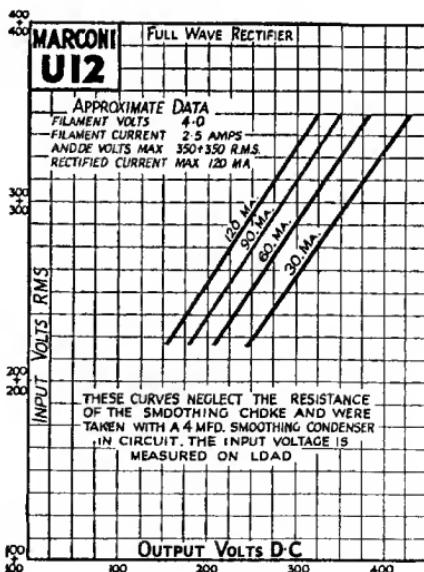


**U 10 - 15/-**

Marconi U.10 is the most popular rectifier, providing up to 60 milliamperes at 250 volts and thus catering for the great majority of three and four valve receivers. It is also useful for supplying rectified current to the field windings of moving coil speakers taking up to 15 watts.

**U 12 - 17/6**

Marconi U.12 is a new general purpose rectifier delivering up to 120 milliamperes at 350 volts. It is thus suitable for multi-valve receivers having large output valves of the PX.4 type, which operate on a moderate H.T. voltage. U.12 is often used as a combined source of high tension and field current for a moving coil speaker, thus dispensing with the need for a second rectifier.

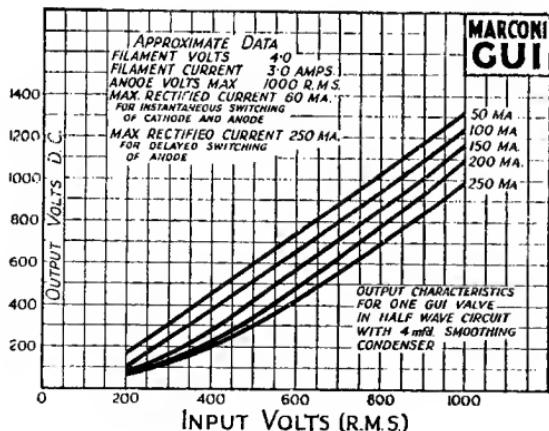
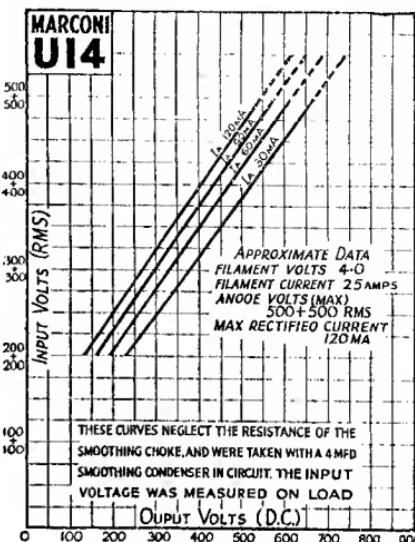




# MARCONI RECTIFIERS

## U 14 - 22/6

Marconi U.14 is a high voltage rectifier delivering up to 120 m.a. at 500 volts, for valves of the high power class such as LS.5a, LS.6a, etc. It is in effect an improved equivalent to the famous Marconi U8, with a 4 volt filament. The high voltage provides ample margin for high tension and automatic grid bias.



## GU 1 - 25/-

Marconi GU.1 is a half-wave mercury rectifier delivering up to 250 m.a. at 1,000 volts. It is used for supplying valves such as Marconi DA.60 or banks of smaller valves; also for H.T. accumulator charging and loudspeaker field supply.



# THE BEST VALVES FOR A.C. ALL ELECTRIC SETS.

RECEIVER.	MARCONI VALVE COMBINATION.				
	H.F.	Det.	1st L.F.	2nd L.F.	Rectifier
<b>Aeonic</b> two-valve A.C. ...	—	MHL.4	P.425	—	U.10
" S.G.4 A.C. ...	MS.4	MHL.4	MHL.4	P.625	U.10
<b>Amplion</b> two-valve Mains ...	—	MH.4	PT.4	—	—
" Radio-gram ...	MS.4	MHL.4	MHL.4	P.625 (2)	—
" Standard Mains ...	MS.4	MHL.4	MHL.4	P.625 (2)	—
" Cabinet ...	MS.4	MHL.4	MHL.4	P.625 (2)	—
<b>Bowyer Lowe Vox Populi</b> 3 ...	MS.4	MH.4	ML.4	—	—
" " Radio-gram ...	MS.4	MH.4	ML.4	—	—
<b>Brownie</b> Dominion Mainset 2 ...	—	MH.4	ML.4	—	—
" Dominion S.G. 3 ...	MS.4/b	MH.4	ML.4	—	—
<b>Burndept</b> Universal Screen 5 ...	MS.4/b	MH.4	MH.4	P.625A (2)	U.10
" A.C. Screen 7 ...	MS.4 (2)	MH.4	MH.4	P.625A (2)	U.10
" A.C. Ethogram ...	MS.4 (2)	MH.4	MH.4	P.625A (2)	U.10
<b>Burne-Jones</b> Magnum 2 ...	—	MH.4	ML.4	—	—
" " Band Pass 4 ...	MS.4 (2)	MH.4	ML.4	—	—
" " Radio-gram ...	MS.4	MH.4	ML.4	—	—
<b>Chakophone</b> Eaglet 2 ...	—	MHL.4	ML.4	—	—
" Senior 2 ...	—	MH.4	MPT.4	—	U.10
<b>Columbia</b> " 309 " A.C. ...	—	MHL.4	PT.425	—	—
" " 307 " A.C. ...	MS.4	MHL.4	PT.425	—	U.5
" " 331 " A.C. ...	MS.4	MHL.4	PT.425	—	U.5
" " 304 " A.C. (1929) ...	S.21 (3)	L2/b	P.625	—	U.5
" " 304 " A.C. (1930) ...	MS.4 (3)	ML.4	PX.4	—	U.5
<b>Cossor</b> 2-valve A.C. ...	—	MH.4	PT.425	—	—
" 3-valve A.C. ...	MS.4/b	MH.4	PT.425	—	U.10
<b>Dubiller</b> 2-valve A.C. ...	—	MH.4	ML.4	—	U.10
" S.G. 3 ...	MS.4/b	MH.4	ML.4	—	U.10
<b>Edison</b> Bell Mains 3 ...	—	MH.4	MHL.4	PX.4	U.10
" " Mains S.G.3 ...	MS.4	MH.4	PT.425	—	U.10
" " Junior Radio-gran ...	—	MH.4	MPT.4	—	U.10
" " Senior Radio-gran ...	MS.4	MH.4	MHL.4	LS.6A	—
<b>Ediswan</b> 3-valve A.C. ....	MS.4/b	MH.4	MPT.4	—	—
<b>Ekco</b> P.2 ...	—	MH.4	PT.425	—	—
" S.G.P.3 ...	MS.4	MH.4	PT.425	—	—
" Straight 3 ...	—	MH.4	MH.4	P.625	U.10
" 2-valve A.C. (1931) ...	—	MH.4	PT.425	—	—
" 3-valve A.C. (1931) ...	MS.4/b	MH.4	PT.4	—	—
<b>Ferranti</b> " 21-22 " A.C. ...	—	MH.4	P.625	—	U.10
" " 31-32 " A.C. ...	MS.4/b	MH.4	P.625	—	U.10
" Radio-gram ...	MS.4/b	MHL.4	MHL.4	LS.5A (2)	U.8
<b>Gambrell</b> A.C. 3 (1929) ...	MS.4/b	MHL.4	PT.425	—	—
" A.C. 3 (1930) ...	MS.4/b	MH.4	ML.4	—	—
" A.C. 4 (1929) ...	S.410	L.410	PT.425 (2)	—	—
" Radio-gram (1930) ...	MS.4/b	MH.4	ML.4	—	—
<b>G.E.C.</b> S.G. 3 (1929) ...	S.8	D.8	P.625A	—	U.5
" S.G. 3 (1930) ...	MS.4	MH.4	PT.625	—	U.5
" all-electric 4 ...	MS.4 (2)	MH.4	PX.4	—	U.10
" Radio-gram ...	MS.4 (2)	MH.4	PX.4	—	U.5 & U.10
<b>H.M.V.</b> Radio-gram 520 ...	MS.4	MHL.4	MH.4	PX.4	U.10
" Radio-gram 521 ...	MS.4 (2)	MHL.4	P.625	—	U.10
<b>Igranic</b> A.C.3 cabinet ...	MS.4	MH.4	PT.425	—	U.10



		H.F.	Det.	1st L.F.	2nd L.F.	Rectifier.
<b>Kolster Brandes</b>	240-241	...	MH.4	PT.425	—	U.10
" "	161-169	MS.4/b	MH.4	PT.425	—	U.10
" "	233-234	MS.4 (2)	MH.4	MII.4	PX.4	U.10
" "	188-189	MS.4	MII.4	MH.4	LS.5A (2)	U.8
" "	250-251	MS.4/b	MH.4	PT.425	—	U.10
" "	Electric Pup	—	MH.4	MII.4	—	U.10
" "	Radio-gram	—	—	—	—	—
" "	167-168	MS.4/b	MH.4	PT.425	—	U.10
" "	Radio-gram	—	—	—	—	—
" "	250-151	MS.4/b	MH.4	PT.4	—	U.10
<b>Lamplugh</b>	AC/Straight 2	...	—	MII.4	ML.4	—
" "	AC/Straight 3	—	—	MII.4	MII.4	—
" "	AC/Console S.G. 3	MS.4	MII.4	ML.4	—	U.10
<b>Lissen</b>	Radio-gram 3-valve	...	MS.4	MII.4	PT.4	—
" "	Radio-gram 4-valve	...	MS.4	MH.4	P.410	PX.4
<b>Lotus</b>	All-electric 3	...	MS.4	MII.4	PT.425	—
<b>McMichael</b>	All-electric 3	...	MS.4/b	MH.4	PT.4	—
" "	Screen Dimie 3	...	S.215 or	MHL.4	ML.4	—
" "			S.8	—	—	—
" "	Radio-gram	...	MS.4/b	MH.4	PT.4	—
<b>Marconiphone</b>	" 220 "	...	—	MII.4	ML.4	—
" "	" 22 "	—	—	MHL.4	ML.4	U.5
" "	" 32 "	—	—	MHL.4	MH.4	U.5
" "	" 39 "	—	MS.4	MII.4	P.425	—
" "	" 44 "	—	S.8 (2)	MH.4	P.425	—
" "	" 47 "	—	MS.4	MHL.4	MH.4	PX.4
" "	" 56 "	—	S.8 (3)	IIL.8	P.625	U.5
" "	" 560 "	—	MS.4 (2)	MHL.4	PT.625	U.10
" "	" 246 "	—	—	MH.4	MPT.4	U.10
" "	" 42 "	—	MS.4/b	MH.4	MPT.4	U.10
" "	" 330 "	—	MS.4/b	MH.4	MPT.4	U.10
<b>Murphy</b>	3-valve	...	MS.4/b	MH.4	MPT.4	—
<b>Phillips</b>	Type 2515	...	—	MHL.4	PT.425	—
" "	Type 2514	...	MS.4	MHL.4	PT.4	U.10
" "	Type 2511	...	MS.4 (2)	MHL.4	PT.4	U.10
" "	Type 2531	...	MS.4 (2)	MHL.4	PT.4	U.10
" "	Type 2601	...	MS.4 (2)	MHL.4	PT.4	U.10
" "	Radioplayer	...	MS.4	MH.4	PT.4	U.10
" "	Radio-gram 2811	...	MS.4 (2)	MHL.4	PT.4	U.10
<b>Pye</b>	All-electric 2	...	—	MII.4	ML.4	—
" "	All-electric 3	...	MS.4/b	MH.4	ML.4	—
" "	Radio-gram 350/DI	...	MS.4/b	MII.4	ML.4	—
<b>R.I.</b>	3-valve Madrigal	...	MS.4/b	MH.4	MPT.4	—
" "	4-valve Madrigal	...	MS.4 (2)	MH.4	MPT.4	—
<b>Regentone</b>	All-electric 4	...	MS.4 (2)	MH.4	PX.4	—
<b>Ultra</b>	All electric 3	...	MS.4/b	MS.4	MPT.4	—
<b>Varley</b>	All-electric 2	...	—	MH.4	ML.4	—
" "	All-electric 3	...	MS.4/b	MH.4	PX.4	—

## FOR ALL-ELECTRIC TRANSPORTABLES

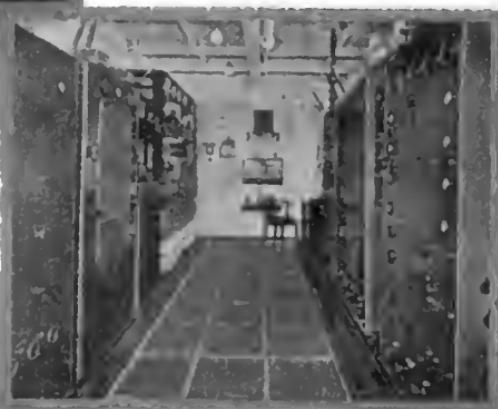
		H.F.	Det.	1st L.F.	2nd L.F.	Rectifier.
<b>Burne Jones</b>	Magnum S.G. 3	MS.4	MH.4	ML.4	—	—
<b>Ediswan</b>	(improved model)	MS.4/b	MH.4	MH.4	ML.4	U.10
<b>Kolster Brandes</b>	KB214-224	MS.4/b	MH.4	MH.4	PX.4	U.10
<b>Lissen</b>	4-valve	MS.4/b	MII.4	P.410	P.425	U.5
<b>Lotus</b>	...	MS.4/b	MH.4	PT.425	—	U.10
<b>Pye</b>	Twintriple	MS.4 (2)	MH.4	ML.4	—	—
<b>Selector Electric</b>	42	MS.4/b	MH.4	MHL.4	PX.4	—
<b>Varley</b>	Model A.P.12	MS.4/b	MH.4	P.X.4	—	U.10





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“Empress of Britain.”  
Marconi Valves are  
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Lightships rely on  
Marconi Valves  
for their only means  
of communication

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